

# UTILITY RELATED INCENTIVES & REBATES



## Fall UFOMA Conference 2011

Presented by

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# UBEES:

## UTAH BUILDING ENERGY EFFICIENCY STRATEGIES



Building a Better Future for Utah

# UBEES CORE TEAM

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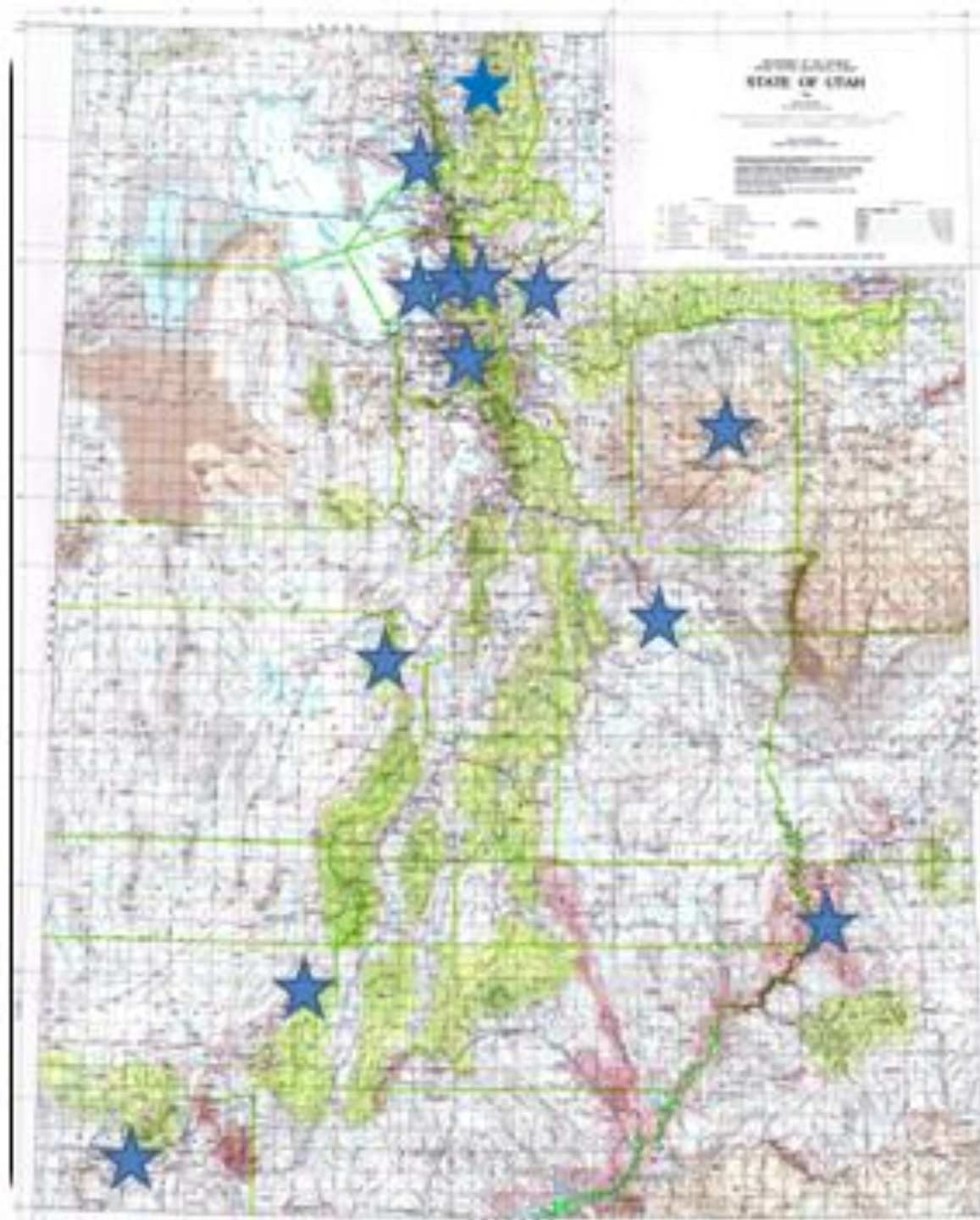
- Division of Facilities and Construction Management
- Office of Energy Development
- Utah Clean Energy
- The Cadmus Group



# UBEES STRATEGIES

## Energy code and code compliance

- Monthly Morningside Code Compliance trainings and webcasts.
  - October 13, 7:30 AM, NFRC Fenestration Requirements, <http://ubees.utah.gov/training/index.html>
- Additional funding to provide ICC scholarships for ICC energy certified professional – now 83 certified in Utah
- Energy Code training – request assistance
- Utah Energy Code Ambassadors



## Regional Representation

John Chase, Logan City/ Cache County

Bob Bennett, Price City/ Carbon County

Karl Mott, Duchesne County

William Hulse, Moab City/ Grand County

Larry Palmer, Cedar City/ Iron County

Matt Zeigler, Holden/ Millard County

William Vander Linden, Coalville/ Summit County

Brent Ursenbach, Salt Lake County

William (Bill) Bailey, West Jordan City/ Salt Lake County

Charlie Powell, Orem City/ Utah County

Corey Bundy, Santa Clara City/ Washington County

Gary Kerr, North Ogden City/ Weber County

Bryan Romney, Univ. of Utah



# UBEES STRATEGIES

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## Workforce Development

- Members of SLCC Green Academy program energy management advisory board.
- Promoted and made connections for Home Energy Raters (HERS) and Building Performance Institute (BPI) trainings – important to Utah Home Performance Program
- SLCC energy managers, 7 interns hired.

# UBEES STRATEGIES

## Measure and benchmark energy use

- 80% of state owned large buildings benchmarking energy use.
- Benchmarked or assisted Canyon, Granite, Park City, Salt Lake City, San Juan and Uintah school districts
  - 192 buildings



K-12 Schools

“You can’t manage what you can’t measure.”

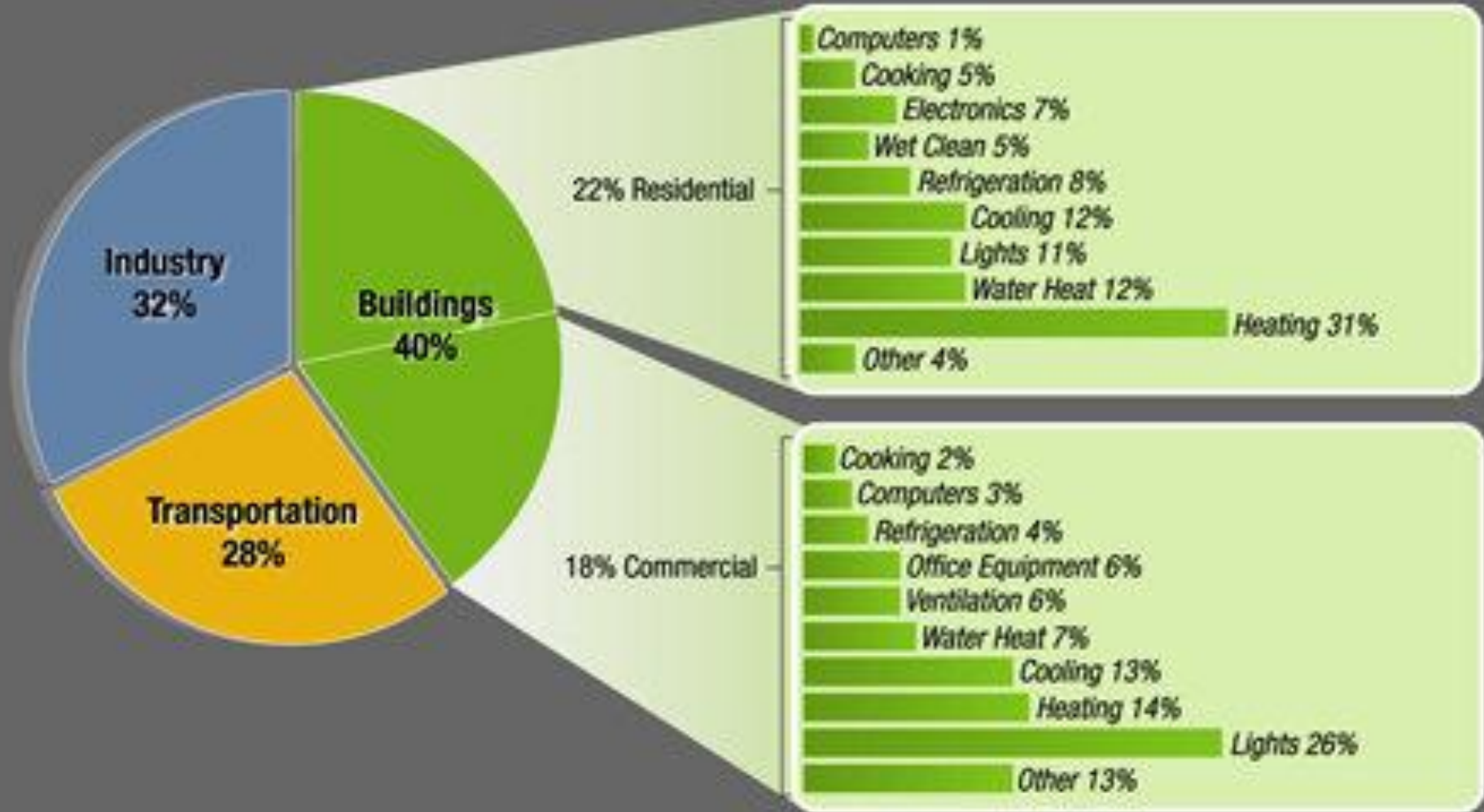
# UBEES STRATEGIES

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## Measure and benchmark energy use

- + 38 K-12 ENERGY STAR labeled schools in 2011
- + Top 25% performance
- + Salt Lake City School District is sending in ENERGY STAR certification applications for 19 schools.
  - × SLCSD has saved over \$500,000 this year in avoided energy costs and as Greg Lebecchi, District Energy Manager, said, “**put \$245,000 back into the local Salt Lake community**”



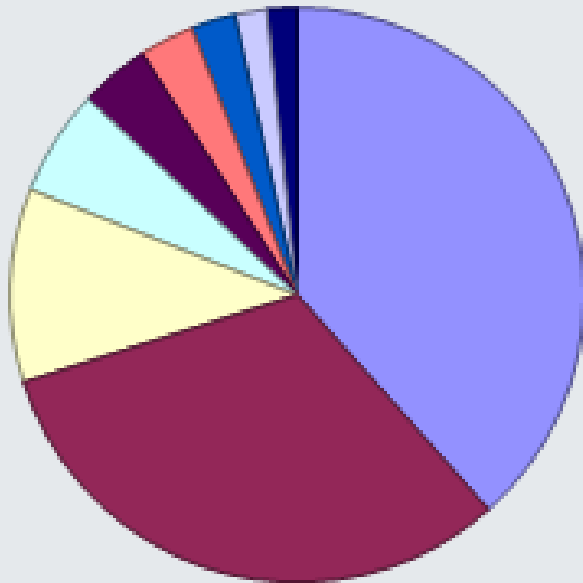


The Buildings Sector accounts for about 40% of U.S. Energy,  
72% of Electricity,  
and 34% of Natural Gas use.

Source: Buildings Energy Data Book, Sept. 2008, Tables 1.1.3 1.1.6, 3.1.1, 3.3.1, 4.1.5, 5.1.2, 5.3.1

# SCHOOLS ELECTRIC INTENSITY

Electric Intensity (kWh/sqft) -- Schools



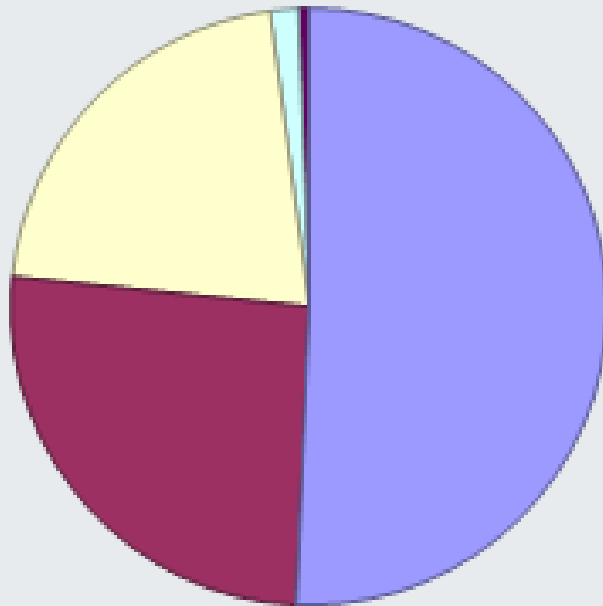
4.88	Cooling	38.40%
4.03	Lighting	31.70%
1.38	Ventilation	10.90%
0.76	Office Equip.	6.00%
0.50	Refrigeration	3.90%
0.39	Cooking	3.10%
0.32	Water Heating	2.50%
0.23	Other	1.80%
0.22	Heating	1.70%

Source: Rocky Mountain Power's Business Solutions Toolkit  
Commercial Benchmark Data



# SCHOOLS NATURAL GAS INTENSITY

Natural Gas Intensity (kBtu/sqft) -- Schools



10.24	Water Heating	50.70%
5.23	Cooking	25.90%
4.30	Heating	21.30%
0.30	Cooling	1.50%
0.12	Other	0.60%

Source: Rocky Mountain Power's Business Solutions Toolkit  
Commercial Benchmark Data

# AVERAGE ENERGY/UTILITIES COST PER STUDENT

(NATIONAL CLEARINGHOUSE FOR EDUCATIONAL FACILITIES)

The national median cost per student (K-12) of energy/utilities

2005 - \$233.05\*

2006 - \$297.67\*\*

2007 - \$299.43\*\*\*

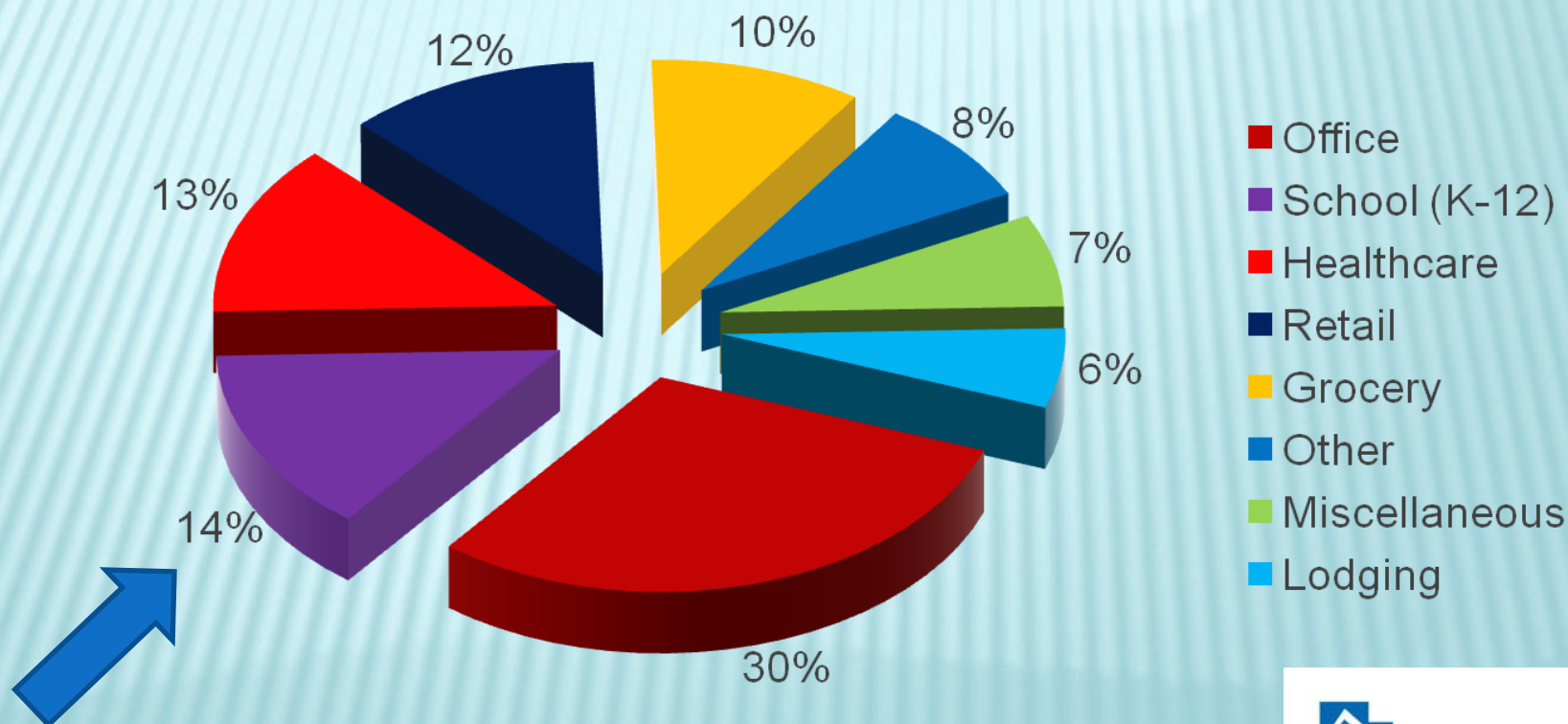
2008 - \$295.13\*\*\*\*

- American School and University's 38th Annual M&O Cost Study indicates that **energy/utility costs are 32 percent of the M&O budget.**



# ENERGY EFFICIENCY POTENTIAL

## Achievable Potential by Commercial Sector



# ENERGY EFFICIENCY POTENTIAL

*1 aMW*

will power approximately  
725 residential customers  
for a year

*161 aMW*

achievable energy  
efficiency potential  
in Utah

Enough to power *120,000* homes



# UTILITY RELATED INCENTIVES & REBATES



# Energy Efficiency Incentive and Rebate Programs

Bart DeGiorgio/Molly Araktingi  
Alliance Coordinators



# Energy Efficiency Programs

## Commercial – Industrial – Agricultural Electrical Savings Project

### FinAnswer Express

- Most common efficiency measures
- One-for-one replacement
- \$/per unit equipment incentive
- Possible custom incentives for equipment outside eligibility requirements

### Energy FinAnswer

- Custom energy engineering services
- \$/kWh incentive
- For Equipment not part of Express
- Sophisticated building automated systems



## FinAnswer Express

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- Purpose of Program Design
  - Encourage commercial to installation of high-efficiency HVAC, lighting, VFDs, chillers, etc.
- Objective
  - Achieve persistent reductions in energy use and demand

## Efficiency Programs (Not Changing)

- Pre-purchase Application Process (Lighting Retrofits):
  - Letter of Intent with copy of power bill
  - Incentive Agreement before construction
  - Invoices and inspections (as necessary)
  - Closeout and Payment 45 days after final submittal
- Post-purchase Application Process
  - Non-Lighting and New Construction/Major Renovation (lighting)

## FinAnswer Express – Customer Eligibility

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- FinAnswer Express is available to any customer with electric service on rate schedules 6, 6A, 6B, 8, 9, 9A, 10, 12, 21, 23, 23B
- Retrofit and New Construction projects are eligible (some restrictions apply)
- Qualifying measures must be installed and incentives applied for with in 1 year





# FinAnswer Express Non-Lighting– Customer Application Process

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- Post-purchase application process:
  - Step 1: Purchase and install a qualifying unit at an eligible location
  - Step 2: Obtain an incentive application from dealer or Rocky Mountain Power
  - Step 3: Submit incentive application
  - Step 4: Receive incentive check within 45 days of application submission



# FinAnswer Express – Non-Lighting Incentives

- HVAC Incentives
  - **\$50/ton \$75/ton \$100/ton** for qualifying unitary AC/HP equipment
  - **\$0.02 / CFM** for qualifying evaporative cooling
  - **\$65/hp** for eligible VFDs\*
  - **\$0.12/kWh and \$50/kW** for Chillers

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# **Questar Gas Commercial & Industrial Programs**

**-ThermWise Business Rebates-**





## Business Rebates – Customer Eligibility

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- The Business Rebates program is available to any customer with Questar Gas service in **UTAH** on a commercial GS rate schedule
- Retrofit and New Construction projects are eligible (some restrictions apply)
- Qualifying measures must be installed after Jan. 1, 2007.



# Business Rebates – Customer Application Process

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- Post-purchase application process:
  - Step 1: Purchase and install a qualifying unit at an eligible location
  - Step 2: Obtain an incentive application from dealer or Questar Gas
  - Step 3: Submit incentive application
  - Step 4: Receive incentive check within 45 days of application submission



## Business Rebates

- HVAC Rebates
  - **\$200+ \$400** for 90%+ efficient Furnaces
  - **\$1.25/kBtu** for 83%+ efficient Unit Heaters
  - **\$6.00/kBtu** for 90%+ efficient Unit Heaters
  - **\$5.00/kBtu** for eligible Infrared Heaters
- Boiler and Water Heating
  - **Up to \$3.25/kBtu** 90%+ Hot Water Boilers
  - **\$2.00/kBtu** for 82%+ Steam Boilers
  - **\$50 ea.** for  $EF \geq 0.62$  Water Heaters
  - **\$100 ea.** for  $EF \geq 0.67$  Water Heaters
  - **\$2.00/kBtu** for Tankless Water Heaters



# Unit Heater 90% Rebates

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## High-efficiency Gas Unit Heaters

Ductless space heaters typically installed in ceiling – mounted locations in industrial and commercial buildings.

New construction and retrofit installations are eligible

- **Required Efficiency: > 90%**
- **Rebate: \$6 per kBtu/hr**



# Business Rebates – Rebates for Boiler Tune-Ups

- Boiler Tune-Up
  - **\$300/tune-up** for qualifying tune-ups with verified increase in combustion efficiency
- Qualifying Tune-Up should include:
  - Pre- and Post-Tune-Up Combustion Analysis
  - Adjustments to draft control
  - Optimize fuel/air input
  - Other measures as necessary (i.e. seal combustion chamber, clean heat exchanger)

# Business Rebates – Weatherization (new construction)

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- Increased Roof Insulation
  - **\$0.04/ft<sup>2</sup>** minimum increment of R-5 or higher above code
- Increased Wall Insulation
  - **\$0.03/ft<sup>2</sup>** minimum increment of R-3.7 continuous insulation above code
- High Efficiency Windows
  - **\$0.28/ft<sup>2</sup>** U-value  $\leq 0.30$  (Glazing only rating)
  - **\$0.28/ft<sup>2</sup>** U-value  $\leq 0.30$  (Entire assembly rating)

## Business Rebates – Weatherization (retrofit)

- Increased Roof Insulation
  - **\$0.12/ft<sup>2</sup>** minimum increment of R-10
- Increased Wall Insulation
  - **\$0.08/ft<sup>2</sup>** minimum increment of R-10
- High Efficiency Site-Built Windows
  - **\$0.37/ft<sup>2</sup>** U-value  $\leq 0.30$  (Glazing only rating)
  - **\$0.37/ft<sup>2</sup>** U-value  $\leq 0.30$  (Entire assembly rating)



## Business Rebates – Food Service

Appliances	Requirements	Rebate
Low Flow, Pre-Rinse Spray Valves (retrofit only)	Use 1.6 gallons per minute (GPM) or less	\$25
High Efficiency Gas Convection Oven	Cooking efficiency rating $\geq 40\%$ utilizing ASTM Standard F1496	\$500/oven
ENERGY STAR Gas Steam Cooker	Cooking efficiency rating $\geq 38\%$	\$1000/unit
ENERGY STAR Commercial Gas Fryer	Cooking efficiency rating $\geq 50\%$	\$500/vat
High-Efficiency Gas Combination Oven	Cooking efficiency rating $\geq 40\%$ utilizing ASTM Standard F1639	\$1000/unit
High-Efficiency Gas Griddle	Cooking efficiency rating $\geq 38\%$ utilizing ASTM Standard F1275	\$300/unit



# Energy Efficiency Alliance

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- Rocky Mountain Power and Questar Gas each have Energy Efficiency Alliance
- Benefits of Membership
  - Marketing visibility
  - Training for alliance vendors
  - Opportunity to increase sales of high efficiency equipment
  - Possible co-op marketing opportunities
- Applications available on website



# Recap – What Can You Do to Benefit Customers?

- Be aware of incentive programs
  - Identify energy savings opportunities
  - Confirm customer eligibility
  - Submit low-cost & life-cycle cost bid proposals
  - Identify other energy efficiency/sales opportunities
  - Contact Rocky Mountain Power/Questar Gas for assistance
- Join the Energy Efficiency Alliance
  - Network of industry professionals
  - Name listed on utility websites



# Questions?



**QUESTAR**  
*Gas*

 **ROCKY MOUNTAIN  
POWER**  
A DIVISION OF PACIFICORP



## For More Information ...

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Rocky Mountain Power Incentive Programs  
[www.rockymountainpower.net/wattsmart](http://www.rockymountainpower.net/wattsmart)

Questar Gas ThermWise Programs  
[www.ThermWise.com](http://www.ThermWise.com)



# Contact Information

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## For Questar and FinAnswer® Express

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- Molly Araktingi  
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## For FinAnswer® Express Lighting

- Mark Clary  
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Email: [mark.clary@evergreen-efficiency.com](mailto:mark.clary@evergreen-efficiency.com)



# ENERGY SERVICE COMPANIES

- × Nine Pre-Qualified Contractors on State of Utah Division of Purchasing web site:  
<http://generalservices.utah.gov/statewidecontracts/Contracts.aspx>

